

AMENDMENTS TO THE SPECIFICATION:

Please replace the paragraphs beginning at page 162, line 1 through page 163, line 5, with the following paragraphs:

EXAMPLE 1

Examples for $N^1_m B_i N^2_n$

a. N^1 and N^2 as identical tetramers, B as a trimer

$N^1 = N^2$, $m = n = 4$, $i = 3$, B = 64 sequence permutations (SEQ ID. NO: 150)

GTGC ATG GTGC

AAG

ACG

AGG

TTG

CTG

GTG

...

...

...

GGG

b. N^1 and N^2 as non-identical tetramers, B as a tetramer

$N^1 \perp N^2$, $m = n = 4$, $i = 4$, B = 256 sequence permutations (SEQ ID. NO: 151)

GTCC ATCG CTAC

AACG

ACCG

AGCG

....

....

....

GGGG

c. N^1 as a heptamer, N^2 as an octamer, B as an octamer
 $N^1 \text{ } [[+]] \perp N^2$, $m = 7$, $n = 8$, $i = 8$, $B = 65,536$ sequence
 permutations (SEQ ID. NO: 152).

GCTGCCC
 N^1

ATTCGTAC
 B

GCCTGCCC
 N^2

EXAMPLE 2

Separation of proteins on a DNA array

$N^1_m B_i N^2_n (S^1)_t M(R^{15})_a (S^2)_b \text{LXProtein}$ where B is a trimer;
 $m = n = 4$, $i = 3$, $t = b = 1$; underlined sequences are N^1 and N^2

SEQ ID NO: 153

```

/  CTGC ATG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 1
/  ---CACG TAC CACG
/
/  CTGC AAG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 2
/  ---CACG TTC CACG
/
/  CTGC ACG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 3
/  ---CACG TGC CACG
/  ...
/  ...
/  ...
/  CTGC GGG GTGC -  $S_1$  -  $M(R^{15})_a$  -  $S_2$  - L - X - Protein 64
/  ---CACG CCC CACG
/
  
```

SEQ ID NO: 154